What is claimed is:

1. A double disconnect system in a drive assembly of a motor vehicle comprising:

a first drive axle;

a second drive axle driven by a second drive train;

a first clutch assembly for selectively engaging and disengaging said second drive train; and

a second clutch assembly for selectively engaging and disengaging axle shafts of said second drive axle from a differential assembly.

2. The double disconnect system according to claim 1, further comprising a primary rear drive axle, wherein said second drive train is an auxiliary rear prop shaft and said second drive axle is an auxiliary drive axle of a tandem vehicle.

3. The double disconnect system according to claim1, wherein, when said first and second clutch assemblies are in a nonengaged condition, said differential assembly is in a non-rotating state.

4. The double disconnect assembly according to claim 1, wherein said differential assembly comprises pinion gears rotatably mounted with respect to a cross pin, first and second side gears being rotatable about a common transverse axis, rotatable first and second axle shafts which are co-axial with said first and second side gears, respectively.

5. The double disconnect system according to claim1, wherein said first and second axle shafts are axially slidable and interconnected to provide simultaneous axial movement of said axle shafts to thereby mutually disconnect said first and second axle shafts from said first and second side gears.

6. The double disconnect assembly according to claim 5, further comprising an interconnecting member interconnecting said first and second axle shafts to translate in simultaneously along said transverse axis.

7. The double disconnect assembly according to claim 6, wherein said interconnecting member comprises a rod extending from an inboard end of said first axle shaft to an inboard end of said second axle shaft.

8. The double disconnect assembly according to claim 7, wherein said rod passes through said cross pin.

9. The double disconnect assembly according to claim 6, wherein said interconnecting member comprises an interconnecting collar adapted to receive said cross pin passing therethrough, said interconnecting collar extending between and connecting said first and second axle shafts.

10. The double disconnect assembly according to claim 4, further comprising:

first clutch members on said first and second side gears; and

second clutch members on said first and second axle shafts for engaging said first clutch members of respective first and second side gears.

11. The double disconnect assembly according to claim 5, further including a ring which is mounted on one of said first and second axle shafts for axially moving said first and second axle shafts simultaneously in the same direction between a clutch engaging position and a clutch disengaging position.

12. The double disconnect assembly according to claim 11, further including an actuator, wherein said actuator includes an arm for engaging said ring for slidably

moving said first and second axle shafts between said clutch engaging position and said clutch disengaging position.

13. The double disconnect differential assembly according to claim 4, wherein outer surfaces of said first and second axle shafts and inner surfaces of said first and second side gears have complementary splines.

14. The dual disconnect differential assembly according to claim 4, wherein said first and second side gears have axially extending central bores, said first clutch members on said first and second side gears are splines formed on portions of said bores, said second clutch members on said first and second axle shafts are splines formed on outer surfaces thereof, the splines on said first and second side gears and the splines on said first and second axle shafts being in engagement when said first and second axle shafts are in a clutch engaging position and out of engagement when said first and second axle shafts are in a clutch disengaging position.

15. The dual disconnect differential assembly according to claim 14, wherein a compression spring urges said first and second axle shafts toward one of said clutch engaging position and said clutch disengaging position.

16. The dual disconnect differential assembly according to claim 15, wherein said compression spring urges said first and second axle shafts toward said clutch disengaging position.

17. The dual disconnect differential assembly according to claim 4, wherein said first and second axle shafts are in driving engagement with said first and second side gears when said first and second driven gears are in a clutch engaging position and are in

a free-wheeling mode when said first and second axle shafts are in a clutch disengaging position.

18. The dual disconnect differential assembly according to claim 4, further comprising a splined interconnection between the axle shafts and the side gears whereby the splines of the splined interconnection are divided into a pair of axial-spaced rows of gear teeth on each of said first and second axles and said first and second side gears.

19. A method of disconnecting a differential assembly of a tandem axle vehicle from a driving torque, comprising the steps of:

disengaging a clutch mechanism upstream of an auxiliary axle of a tandem axle vehicle;

disconnecting first and second axle shafts extending from opposite ends of a differential assembly provided for said auxiliary axle.

20. The method of claim 19, further comprising the step of simultaneously sliding said first and second axle shafts along an axial direction to disconnect said axle shafts from respective first and second side gears of said differential assembly.

21. The method of claim 19, further comprising the step of providing a splined interconnection between the axle shafts and the side gears whereby the splines are divided into a pair of axial-spaced rows of gear teeth.

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